

Establishing a national surveillance unit

Specific activity area being addressed by this action plan

Establishing a core infrastructure – National Surveillance Unit

Safeguarding review recommendations covered

The primary recommendation recorded on page three of The Animal Health Safeguarding Review states “Congress and the United States Department of Agriculture must provide funding and act to rebuild the state and national infrastructure for animal disease control, emergency disease preparedness, and response”.

#3: Encourage use of technological advancements to meet evolving national surveillance system needs.

#4: Develop ongoing quality assurance and continuous improvement plan for evaluation of the effectiveness of the national surveillance system.

#7: Ensure the design of the national surveillance system provides early detection of emerging diseases to allow for an appropriate and timely response

#8: Ensure that the design of the national surveillance system incorporates foreign animal disease surveillance needs.

#9: Ensure the design of the national surveillance system incorporates endemic disease surveillance needs.

#11: Exchange ideas and personnel with other countries in surveillance methodology.

#12: Ensure the design and implementation of the national surveillance system includes state governments, universities, and commercial diagnostic laboratories. Explore implementation of a national laboratory system utilizing a regional laboratory network similar to the CDC model. Create opportunities for innovative approaches for surveillance with surveillance partners and allied industries.

#16: Provide a framework for the national surveillance system including standardization, identification, information management (data capture, description and analysis, interpretation, and dissemination and feedback), and technical resources.

#103: Move to collect all international information in a consolidated system with appropriate analysis for risk.

#106: Lead the development of cooperative efforts among federal and state agencies, animal industry and veterinary medicine, and others to develop, implement, and enhance on-farm animal health quality assurance programs to develop best management practices, to prevent disease, and to provide surveillance and educational programs for the US animal industry.

Issue Group Findings

There is no single point of focus for the collection, processing, and communication of domestic and international animal health surveillance activities. Program disease and FAD surveillance activities are administrated primarily by several national staffs in Riverdale. Other programs with surveillance activities, such as National Animal Health Monitoring System, National Animal Health Reporting System, Emerging Animal Health Issues System, Invasive Species Surveillance, are administrated primarily by staffs at CEAH. Regional and area offices are involved in surveillance initiatives that in some cases have no national coordination. New surveillance partnerships between VS and other agencies are being initiated at various levels. In most cases, communication and cross-unit coordination, and coordination with other entities is not adequate. In order to have the ability to manage baseline surveillance data, to evaluate surveillance tools with respect to their contribution to the overall efficiency of a national surveillance system, to develop comprehensive integrated strategies, and to provide consistently high quality surveillance data and results of analysis, it is essential to establish a national surveillance unit.

The need for more comprehensive, integrated and coordinated animal health surveillance has been recognized in the past. As long ago as 1966, a report of the Subcommittee on Methods and Procedures for Reporting Animal Morbidity and Mortality of the Committee on Animal Health entitled A Historic Survey of Animal Disease Morbidity and Mortality Reporting was published by the National Academy of Sciences. Subsequent recommendations by the Subcommittee led to the appointment of a special panel with the task of designing a system for nationwide surveillance of animal health, under the following charge. *“To design a nationwide system for the continuous surveillance of animal health for the reporting and evaluation of reliable information that can be used to produce geographical and seasonal estimates of disease incidence and prevalence in domestic livestock; to warn of new or emerging diseases; to develop epidemiologic data to aid in control, prevention and eradication of disease and to design the system so as to be concerned with livestock, poultry, pets, laboratory animals, fur bearing animals, zoological specimens, wildlife and aquatic animals”.*

The panel published a report in 1974 titled A Nationwide System for Animal Health Surveillance. The preface of this report stated *“The panel is well aware of the considerable body of statistics on animal morbidity and mortality now being generated by the regulatory agencies, meat inspection services, diagnostic laboratories, clinics, and the diagnostic community in general. These statistics will be useful in surveillance, but they are not being collected in a form that permits statistically valid inferences as to the incidence and prevalence of disease in entire animal populations. The time is now at hand when the methodology of modern statistics should be brought to bear on determining the nature, extent, and costs of disease in the nation’s animal populations. Only with such statistics can the full resources of modern veterinary science be brought effectively and efficiently to bear on the animal disease problems of the nation”.* The report’s primary proposal is a National Center for Animal Health Surveillance with an initial staff of 46 and expanding to a staff size of 126.

The national surveillance system will not become reality unless there is full time VS staff devoted to developing and maintaining the system. The national surveillance issue group holds the strong opinion that part-time and ad hoc resources will not be able to create an adequately functioning surveillance system. Earlier efforts with developing a NSS have not been successful because individuals are assigned “responsibility,” usually with little or no additional resource; then other top priority responsibilities are assigned to the individuals and the effort becomes diluted to a point that no progress is made. As a member of the issue group put it, “the effort just dries up and blows away.” This has nothing to do with the quality of the individuals given the responsibility; it is the manner in which VS as an institution has acted on this and other issues. Developing a national surveillance system cannot be treated as a project; it must be viewed as an institutional change. That is, in addition to the enhanced surveillance infrastructure, a change in attitude throughout VS is required.

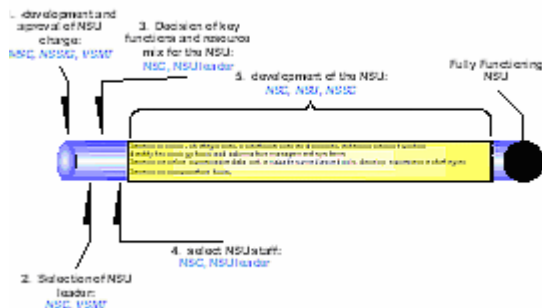
VS has created a national surveillance coordinator position. There is an urgent need for full time staff to serve as the focal point for the coordination and analysis of national surveillance activities. These activities include:

- identifying baseline surveillance data requirements, both domestic and international,
- evaluating surveillance tools, and combinations of tools with respect to their efficacy in a national surveillance system,
- developing new surveillance tools,
- recommending surveillance strategies to achieve specific surveillance goals,
- providing analysis of surveillance data, and
- delivering surveillance data and analysis results to decision makers, stakeholders and interested parties.

The issue group recommends that the national surveillance unit be located with the APHIS Western Hub in Fort Collins, Colorado. This will facilitate collaboration with other APHIS technical resources located at this site, including national program leaders, regional and national epidemiologists, economists, statisticians, wildlife researchers, and information technology specialists.

Proposed actions

The key actions are outlined in the diagram below. The actions, rather than implementing the safeguarding recommendations as written, establish a unit which will assure the implementation of the recommendations listed above. These recommendations will be implemented through the charge, mission and primary activities of the national surveillance unit.



Implementation plan

Tasks

Step 1 Develop and approve national surveillance unit charge and mission - As this action plan creates a new unit within VS, a formal charge must be developed and given official sanction by the VSMT. The charge and mission of the national surveillance unit should include:

- Serve as the focal point of the national surveillance system for the collection, processing and delivery of surveillance information for the purposes of action and risk analysis, both domestic and international.
- Identify requirements for the national surveillance system information infrastructure.
- Identify and manage a baseline data set for surveillance.
- Evaluate the efficacy of surveillance tools, and combination of tools.
- Design and lead the implementation of surveillance systems and strategies.
- Coordinate and integrate surveillance activities to maximize the efficiency and minimize the costs of the national surveillance system.
- Establish linkages and liaisons necessary to carry out elements of this charge

The charge and mission of the national surveillance unit will be drafted by the national surveillance coordinator and the issue group. Official sanction must be given by the APHIS Administrator and the VSMT. **This step has been partially accomplished. A memo from Dr. DeHaven announced the establishment of the national surveillance unit and outlined its charge and primary relationships with other VS units.**

Step 2 Select the national surveillance unit leader - A leadership position must be created with responsibility for the on-site day-to-day operations of the national surveillance unit. The national surveillance unit leader will have the immediate responsibility of organizing the national surveillance unit. There are many administrative tasks required in the start-up

of a new unit, in addition to the personnel actions needed to acquire the staff. The national surveillance unit leader will be a key associate of the national surveillance coordinator. The national surveillance unit leader will be responsible for the managing the many details of start-up and operations, allowing the national surveillance coordinator to focus on larger strategic issues and communication with stakeholders. Development of the position description and selection for the position is the responsibility of the national surveillance coordinator. **Dr. Brian McCluskey has been selected for the national surveillance unit leader position.**

Step 3 Decide key functions and resource mix - The key functions and resources of the national surveillance unit must be identified. Key functions will be developed from the group's charge and mission, which are created in step 1. The number of staff and mix of disciplines for the initial national surveillance unit needs to be determined. A recommendation for initial staffing is found in table 1 under the 'resources needed' section of this action plan. This action is accomplished by the national surveillance coordinator and the national surveillance unit leader.

Step 4 Select staff - These resources must be fully devoted to developing the national surveillance unit and performing the work expected of this unit. Staff can be new hires or a realignment of duties of current staff. In order to implement the national surveillance unit as rapidly as possible, temporary details of 6-9 months should be used if permanent positions can not be immediately established. This action is taken by the national surveillance coordinator and the national surveillance unit leader. **There are currently 5 NSU staff members. Two additional epidemiologists have been selected, two additional veterinarian positions have been advertised and a liaison position located at NVSL is expected to be advertised and filled by the end of FY04; a total of 10 NSU staff members is expected to be in place by the end of FY04.**

Step 5 Develop the unit – This step includes the refinement of the mission developed in step 1. The mission statement must specify the purposes for surveillance which include the rapid detection of introduced and emerging animal health issues, control and eradication of endemic disease and facilitating trade with scientifically defensible surveillance information of trade-limiting diseases. Many operational and strategic processes will need to be developed and decisions made. They include: development of strategic and operational plans, information infrastructure, and baseline data sets, evaluation of surveillance tools, establishment of formal linkages/liaisons, etc. The establishment of formal linkages and liaisons will be important initial activities of the national surveillance unit. Guidance will be provided by the national surveillance coordinator.

Accountable individual/group

Key responsibilities rest with the VSMT in allocating the human and fiscal resources necessary to establish and maintain the national surveillance unit. The national surveillance coordinator and the national surveillance unit leader will have primary responsibility in start-up and continued operations of the national surveillance unit. Others, such as the steering committee, will provide guidance.

Other key players

National surveillance unit staff members will be important implementers in developing the unit (step 5). National, regional and area staff will collaborate on building the necessary liaisons and relationships.

Resources needed

The budget shown in the Table 1 is an estimate for the first 2-3 years of operation. The salary and benefit figures are calculated at the step 5 level of the higher grade (except the unit leader which is at a 15 step 1 level). Positions can be new hires or a realignment of an existing position. All disciplines are currently available within the agency. Major startup costs for moving are averaged over the cost of moving a new hire (\$8,000) and the cost of transferring a current federal employee (\$50,000). The total actual costs will decrease if moving expenses are not necessary and if current VS positions are realigned, rather than hiring a new employee. A VS 8-75E is included in appendix C.

The national surveillance unit is expected to grow as the national surveillance system becomes fully functional. The ultimate staffing level can only be determined as the system evolves.

Statutory/regulatory impacts

There are no anticipated statutory or regulatory impacts associated with establishing the national surveillance unit.

Political sensitivities

As discussed in the findings section, implementing a coordinated, integrated and comprehensive surveillance system will be a challenging process, requiring an institutional change. The national surveillance unit will be a key force driving this change. It must have the appropriate visibility and be recognized by others as having the authority to initiate change. The national surveillance unit must be viewed as a commitment by the VSMT to a 'new' way of doing business in order for others also to commit to the necessary changes.

The manner in which this unit is established can greatly impact the implementation of a national surveillance system, to a positive or negative affect. It must represent a true change, rather than a modification to the status quo.

position	salary	benefits	moving expenses	equip. & misc. expenses
Unit leader 14/15	\$92,496	\$29,599	\$29,000	\$5,000
Veterinary epidemiologist 13/14	\$86,485	\$25,945	\$29,000	\$5,000
Veterinary epidemiologist 13/14	\$86,485	\$25,945	\$29,000	\$5,000
Veterinary epidemiologist 12/13	\$73,184	\$22,045	\$29,000	\$5,000
Program specialist/field liaison 12/13	\$73,184	\$22,045	\$29,000	\$5,000
Program specialist/field liaison 12/13	\$73,184	\$22,045	\$29,000	\$5,000
Economist 13/14	\$86,485	\$25,945	\$29,000	\$5,000
Economist 12/13	\$73,184	\$22,045	\$29,000	\$5,000
Statistician 13/14	\$86,485	\$25,945	\$29,000	\$5,000
Information management specialist 13/14	\$86,485	\$25,945	\$29,000	\$5,000
Data quality manager 12/13	\$73,184	\$22,045	\$29,000	\$5,000
IT hardware support 11/12	\$61,533	\$18,460	\$29,000	\$5,000
Communications specialist 11/12	\$61,533	\$18,460	\$29,000	\$5,000
Administrative support 5/7/9	\$34,703	\$10,411	\$0	\$5,000
	\$1,048,610	\$316,880	\$377,000	\$70,000
total recurring salary and benefit costs	\$1,365,490		one time costs	\$447,000
annual operating budget cost	\$250,000			
total first year startup costs	\$2,062,490			
continuing annual budget	\$1,615,490			
Table 1.				

Sequencing

This is one of three key and related action plans that initiate the transition to the national surveillance system. The vision, steering committee and national surveillance unit action plans must be implemented immediately in order to successfully implement the remaining action plans.

Partnering/cooperation/communication

The national surveillance unit will develop relationships and agreements with states, industry, other countries and agencies to share data, knowledge and technology that will support the goals of the national surveillance system. These linkages will be discussed in more detail in the action plans for *Building capacity and aligning APHIS resources for surveillance* and *Developing a national surveillance network*.

Expected outcomes and performance indicators

(Please see appendix A.)

Linkage to VS Strategic Plan

The national surveillance system provides a mechanism for considering surveillance activities as an integrated whole rather than as a series of independent systems. Both the safeguarding review and the VS Strategic Plan emphasize the need to integrate this “range” into a coherent national system. The national surveillance unit is the key core element that will drive the development of the national surveillance system.